

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS:

1. (Currently amended) An apparatus ~~storage-medium~~ comprising application software that performs one or more operations and that facilitate a conversion of virtual memory addresses to physical memory addresses in a device, said application software comprising:

instructions that initialize an application data structure usable by the application software to facilitate the conversion of virtual memory addresses to physical memory addresses in the device; and

instructions that store pointers to virtual memory addresses in the application data structure; and

instructions that replace the pointers to virtual memory addresses in the application data structure with pointers to physical memory addresses before the execution of a protected application.

2. (Currently amended) The ~~apparatus~~storage-medium of claim 1 wherein the instructions that initialize are executed when the device is in a non-secure mode.

3. (Currently amended) The ~~apparatus~~storage~~medium~~ of claim 1 wherein the application data structure comprises an application array.

4. (Currently amended) The ~~apparatus~~storage~~medium~~ of claim 1 wherein the instructions that store utilize a multi-tiered structure to store virtual addresses.

5. (Currently amended) The ~~apparatus~~storage~~medium~~ of claim 3 wherein the instructions that initialize the application array comprise instructions that initialize a multi-dimensional array.

6. (Currently amended) The storage medium of claim 3 wherein the instructions that initialize the application array comprise instructions that initialize a single-dimensional Java array.

7. (Original) A device, comprising:

a secure physical memory subsystem containing a protected application;

a non-secure virtual memory subsystem containing virtual memory;

a processor coupled to the secure and non-secure memory subsystems; and

logic that converts a pointer to a virtual memory address associated with a parameter to the protected application to a pointer to a physical memory address.

8. (Original) The device of claim 7 wherein the non-secure subsystem further comprises physical memory.

9. (Original) The device of claim 7 wherein the non-secure subsystem contains a copy of the protected application.

10. (Currently amended) A method comprising:
building a list of pointers to one or more virtual memory addresses associated with an object;
converting the one or more virtual memory addresses to one or more physical memory addresses; and
replacing the pointers to one or more virtual memory addresses with pointers to the one or more physical memory addresses;
wherein the object is a parameter to a protected application[[s]].

11. (Original) The method of claim 10 wherein the building a list further comprises storing the list into an array.

12. (Original) The method of claim 11 wherein the array comprises a multi-dimensional array.

13. (Original) The method of claim 10 wherein the object comprises a multi-tiered structure.

14. (Original) The method of claim 10 wherein the object comprises multiple objects.
15. (Original) The method of claim 10 wherein the converting further comprises
executing the protected application.